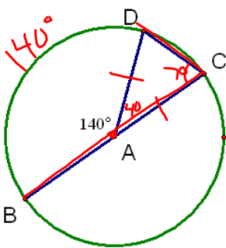
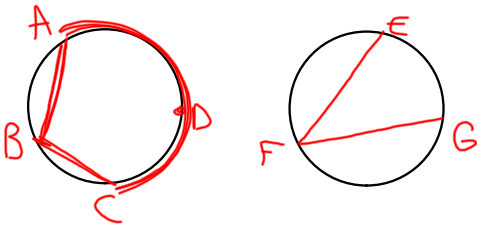


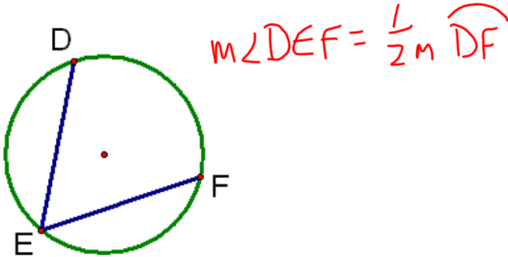
10-4 Inscribed Angles

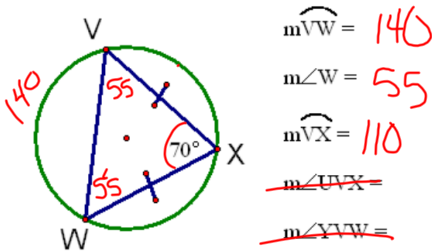
Inscribed angle --angle whose vertex is on the circle and whose sides contain chords of the circle



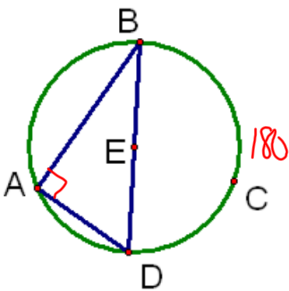
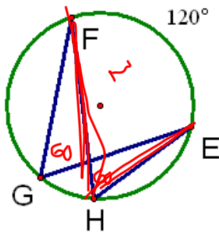
Name the inscribed angle in the picture. $\angle BCD$
What arc does it intercept? \widehat{BD}
What is the measure of the intercepted arc? 140°
What is the measure of the inscribed angle? 70

Theorem 10-5--The measure of an inscribed angle is $= \frac{1}{2}$ the measure of the intercepted arc.

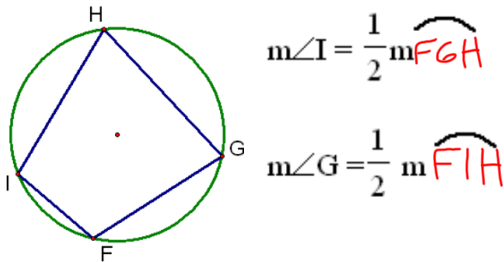




Theorem 10.6--If 2 inscribed angle intercept the same arc, then the angles are congruent.



Theorem 10-7--An angle inscribed in a semicircle is a right angle.



Theorem 10-8--If a quadrilateral is inscribed in a circle, then its opposite angles are supplementary

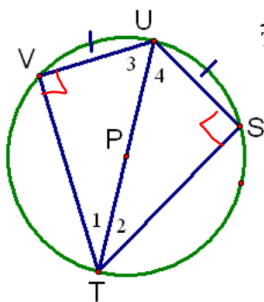
Example 1:

$m\widehat{AT} = 60^\circ$
 $m\widehat{LE} = 76^\circ$
 $m\widehat{ER} = 134^\circ$

Find

$m\angle L = 30$
 $m\angle E = 30$
 $m\angle R = 30$
 $m\angle LAE = 38$
 $m\angle EAR = 67$

Example 2:



\overline{TU} is the diameter

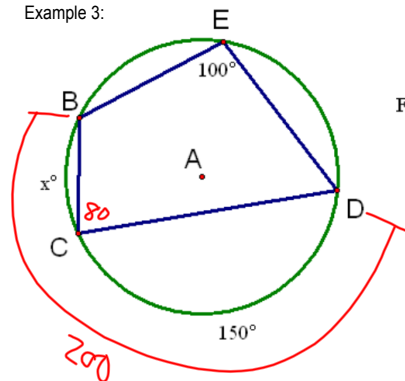
$m\angle 2 = x + 9$
 $m\angle 4 = 2x + 6$

Find

$m\angle 1 =$
 $m\angle 2 =$
 $m\angle 3 =$
 $m\angle 4 =$

$x + 9 + 2x + 6 = 90$
 $3x = 75$
 $x = 25$

Example 3:



Find x.

 HW

p549

8-10, 13-17

Draw Pictures!